



**NOAA
FISHERIES**

Office of Aquaculture



NOAA has directives to preserve ocean sustainability and facilitate domestic aquaculture in the United States through the National Aquaculture Act of 1980, the NOAA and DOC Marine Aquaculture Policies, and Executive Order 13921, "Promoting American Seafood Competitiveness and Economic Growth (May 7, 2020)."

NOAA has a variety of proven science-based tools and strategies that can support these directives. These help communities thoughtfully consider how and where to sustainably develop marine aquaculture that will complement wild-capture fisheries, working waterfronts, and our nation's seafood processing and distribution infrastructure.

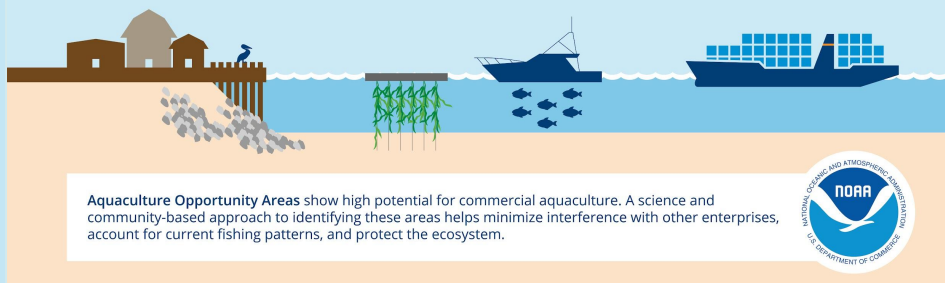
Aquaculture Opportunity Areas

What is an Aquaculture Opportunity Area?

AOAs will expand economic opportunities in coastal and rural areas, and increase our nation's seafood security.

AOAs use the best available science to find appropriate spaces for sustainable aquaculture.

AOAs minimize interactions with other users, such as shipping, fishing, and the military.



Expanding Domestic Aquaculture

Fostering the domestic aquaculture industry is vital to enhancing climate resilient food systems and community health for the nation. An important building block in aquaculture expansion is the science-based planning process to identify **Aquaculture Opportunity Areas (AOAs)**.

AOAs are called for in the May 2020 *Executive Order on Promoting American Seafood Competitiveness and Economic Growth*. Through the executive order, NOAA is tasked with identifying 10 AOAs in the coming years.

An AOA is a small, defined geographic area that NOAA has evaluated through both spatial analysis and the National Environmental Policy Act (NEPA) process and determined to be environmentally, socially, and economically appropriate to support multiple commercial aquaculture operations. Selected areas are expected to support multiple aquaculture farm sites of varying types including finfish, shellfish, seaweed, or some combination of these farm types.

Identifying AOAs is an opportunity to use the best available global science-based guidance on sustainable aquaculture management. This approach has been refined and utilized widely within states and by other countries with robust, sustainable aquaculture sectors.

In the Gulf of Mexico and Southern California, we are searching for AOAs of approximately 500-2,000 acres. However, each AOA will vary depending on the specifics of the location. The size and shape of operations in each area will be determined as part of the AOA identification process. During this process, NOAA will work with federal and state partners, tribes, and interested stakeholders to determine the appropriate size of each. This will include using best available science to consider aspects such as: types of species likely to be cultivated, maximum farm production based on carrying capacity modeling, and other considerations.

Learn more: fisheries.noaa.gov/aquaculture

INCLUSIVE PROCESS

Considering NOAA trust resources and stakeholder uses of a defined area will help encourage the sustainable growth of aquaculture by siting aquaculture farms in ways that minimize impacts to those natural resources and reduce user conflicts while maximizing public input in the AOA identification process.

There will be multiple opportunities for public and stakeholder participation in the process. These include joining public listening sessions and providing comments during the PEIS process and Request for Information periods.

Learn more:

fisheries.noaa.gov/aquaculture



FIRST REGIONS SELECTED FOR FOCUSED EVALUATION

In the summer of 2020, NOAA announced the selection of Southern California and the Gulf of Mexico as the first regions for focused evaluation to identify AOAs. With this selection, NOAA kicked off a rigorous public outreach effort that included engagement with stakeholder groups, development of video and print products, a 60-day comment period, and five public listening sessions. These outreach efforts provided a channel for stakeholders to share their insights, which are vital as the agency works to foster domestic aquaculture opportunities. Through these efforts, the agency created a two-way dialogue that both introduced the concept of AOAs and ensured that stakeholders had a voice in the process.

Aided by the public input gathered through stakeholder engagement and the public comment period, NOAA's National Centers for Coastal Ocean Science (NCCOS) developed two regional Aquaculture Opportunity Atlases using more than 200 data layers accounting for key environmental, economic, social, and cultural considerations, including fishing interests and marine protected areas. The studies identified nine areas in the Gulf of Mexico and 10 areas in the Southern California Bight that may be suitable for aquaculture, while also reducing conflicts with other ocean uses. Areas in the Atlases have characteristics expected to support multiple types of aquaculture and this effort represents the most advanced spatial analyses ever performed for any U.S. ocean region.

IDENTIFYING LOCATIONS FOR AOAs

To identify potential locations for AOAs, NOAA is using a combination of spatial mapping approaches, best available science, and stakeholder input. The Aquaculture Opportunity Atlases developed by NCCOS describe the results of spatial suitability modeling to identify discrete areas between 500-2,000 acres that met the industry and engineering requirements of depth and distance from shore that may support sustainable aquaculture development. Our goal is for each of the first two AOAs to accommodate three to five commercial aquaculture operations, but this will vary depending on the specifics of the location. The Atlases are technical documents providing peer-reviewed geospatial planning information that will be used as one source of information to assist the agency in identifying AOAs.

NOAA will consider the Atlas results along with input from Fishery Management Councils, Marine Fisheries Commissions, states and

tribes, aquaculture stakeholders, and the general public to identify the geographic area(s) to be evaluated in more depth in a National Environmental Policy Act Programmatic Environmental Impact Statement (PEIS). While informed by the Atlases and other relevant information, the decision to identify an AOA will only be made after completion of the final PEIS, which will assess the impacts of siting aquaculture facilities in different potential locations, and issuance of a Record of Decision (ROD). Public comment during scoping and on the draft PEIS are integral to this process.

AQUACULTURE PERMITTING IN AOAs

The AOA process is designed to increase permitting efficiency by providing robust environmental analysis, ensuring environmental sustainability, increasing investor confidence, and ultimately fostering responsible industry growth. Identifying AOAs is an opportunity for proactive stewardship to use best available global science and stakeholder input to provide potential farmers and permitting agencies with in-depth data to increase permitting efficiency. It is important to note that the federal and state permitting and authorization requirements are the same within AOAs as anywhere else. Once AOAs are identified and aquaculture operations are proposed within them, proposals will be subject to federal and state permitting and authorization processes, which may include project-specific requirements such as monitoring, reporting, and coastal zone consistency. Other analyses and efforts would be made to further minimize potential impacts while maximizing sustainable aquaculture production. Monitoring required as part of existing regulatory requirements for aquaculture operations (e.g., Clean Water Act permits) will also provide data that can be used to inform sustainable management.